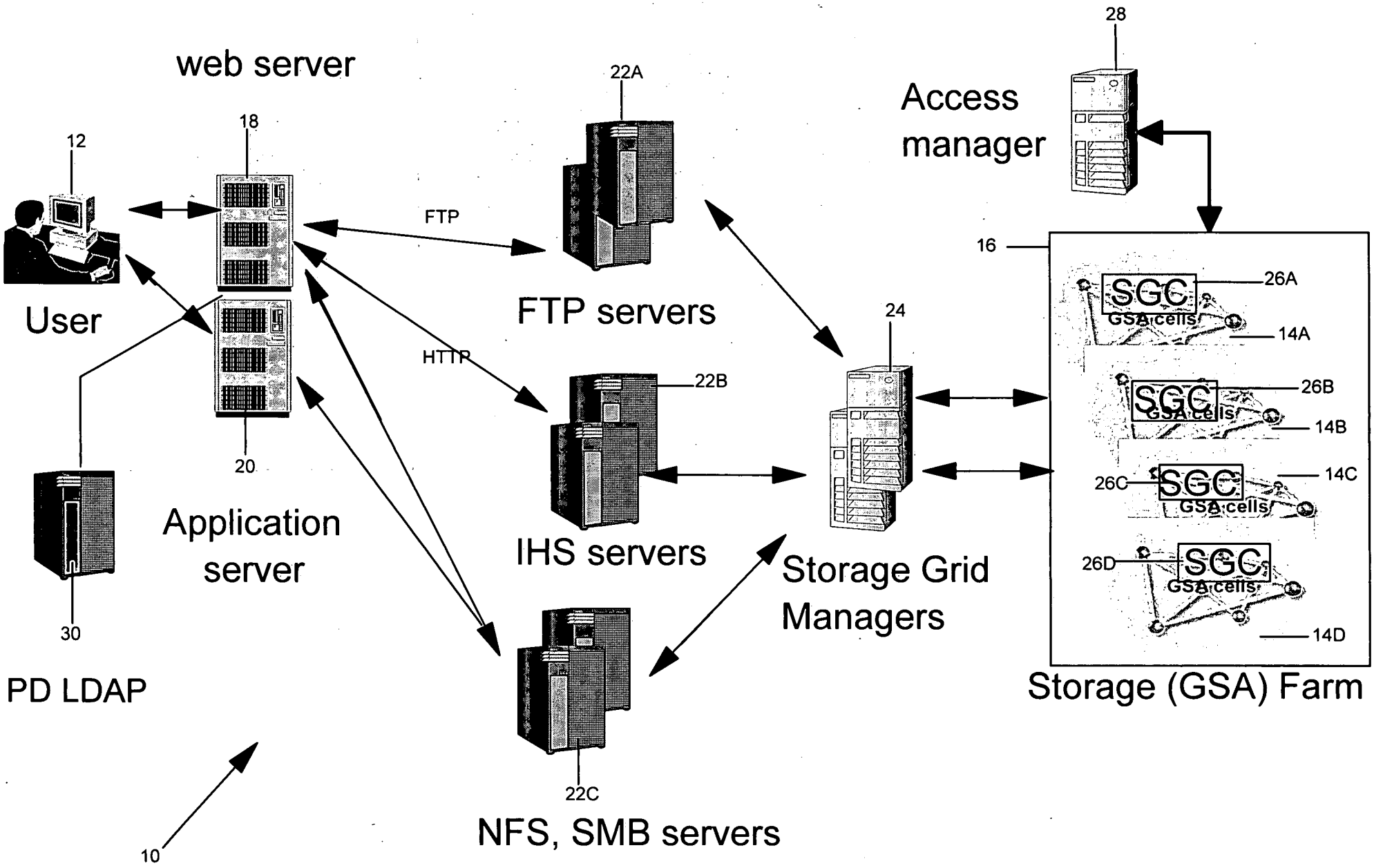
web server
18
12
User
20
Application server
30
PD LDAP
10
FTP
22A
FTP servers
HTTP
22B
IHS servers
22C
NFS, SMB servers
28
Access manager
24
Storage Grid Managers
16
SGC
GSA cells
26A
14A
26B
14B
26C
14C
26D
14D
Storage (GSA) Farm

FIG. 1

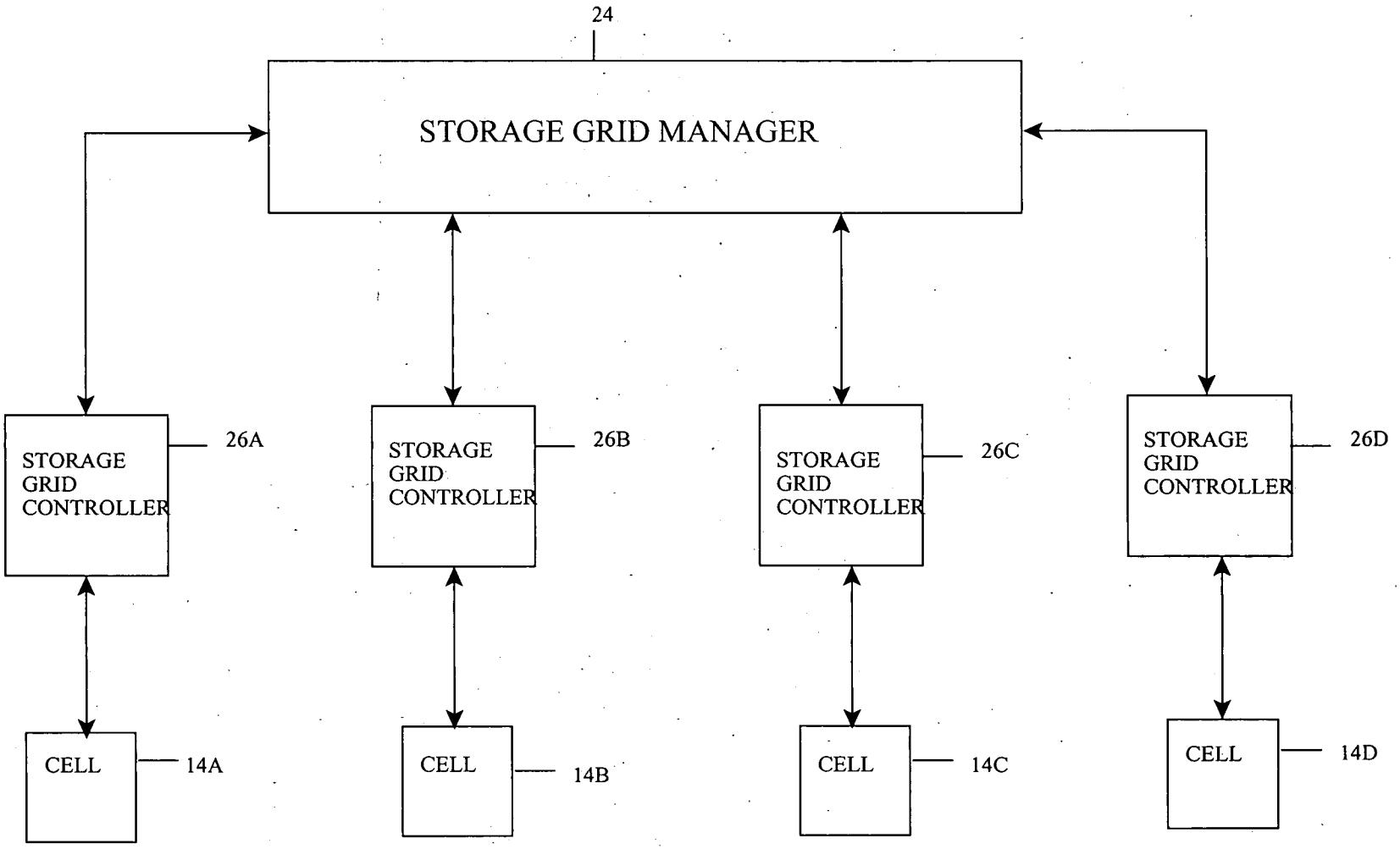
24
STORAGE GRID MANAGER
STORAGE GRID CONTROLLER
26A
STORAGE GRID CONTROLLER
26B
STORAGE GRID CONTROLLER
26C
STORAGE GRID CONTROLLER
26D
CELL
14A
CELL
14B
CELL
14C
CELL
14D

FIG. 2

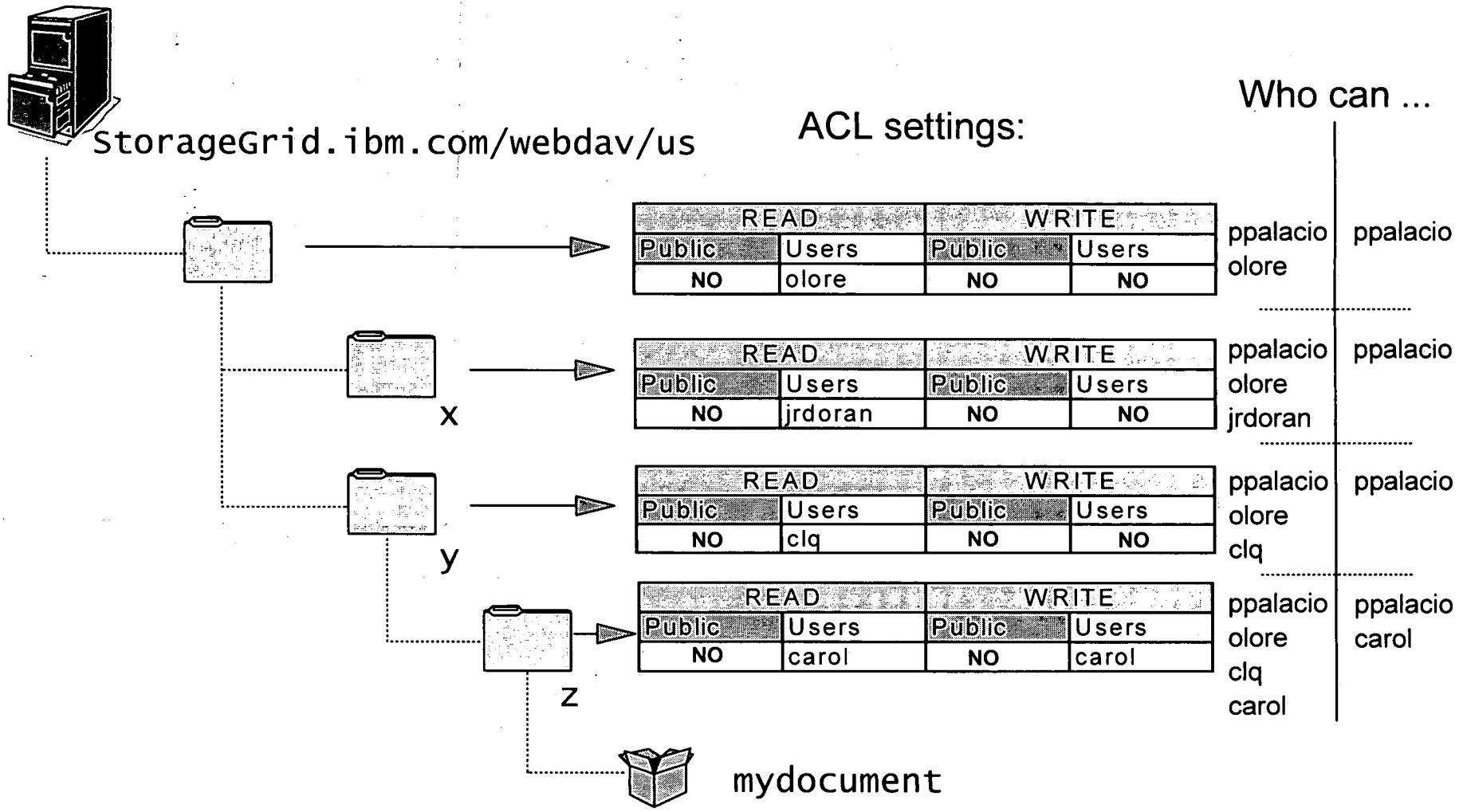
StorageGrid.ibm.com/webdav/us
ACL settings:
Who can ...
READ
WRITE
Public
Users
NO
olore
jrdoran
clq
carol
ppalacio
x
y
z
mydocument

FIG. 3

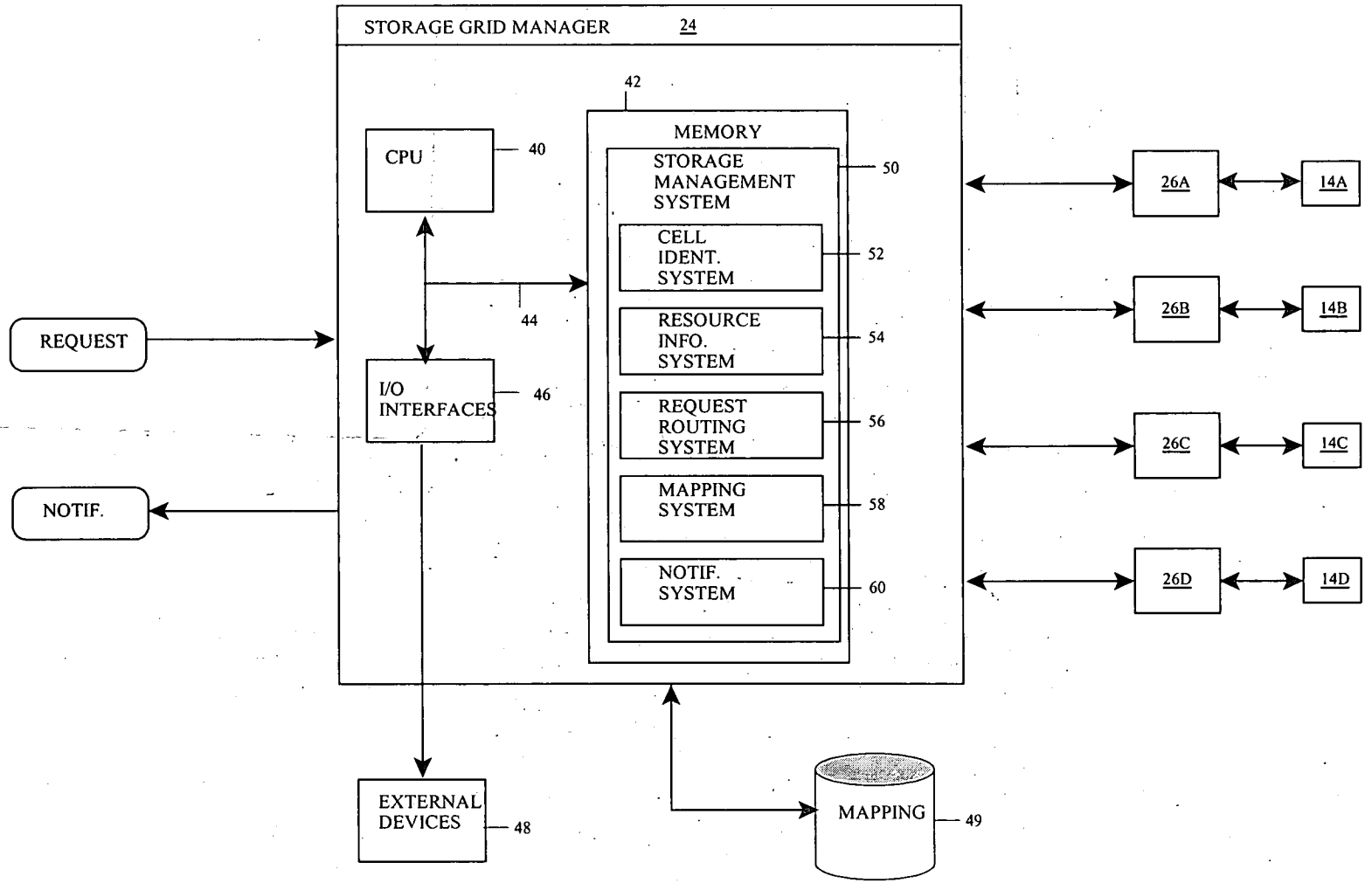
STORAGE GRID MANAGER 24
42
MEMORY
CPU
40
STORAGE MANAGEMENT SYSTEM
50
CELL IDENT. SYSTEM
52
RESOURCE INFO. SYSTEM
54
REQUEST ROUTING SYSTEM
56
MAPPING SYSTEM
58
NOTIF. SYSTEM
60
44
REQUEST
I/O INTERFACES
46
NOTIF.
EXTERNAL DEVICES
48
MAPPING
49
26A
14A
26B
14B
26C
14C
26D
14D

FIG. 4

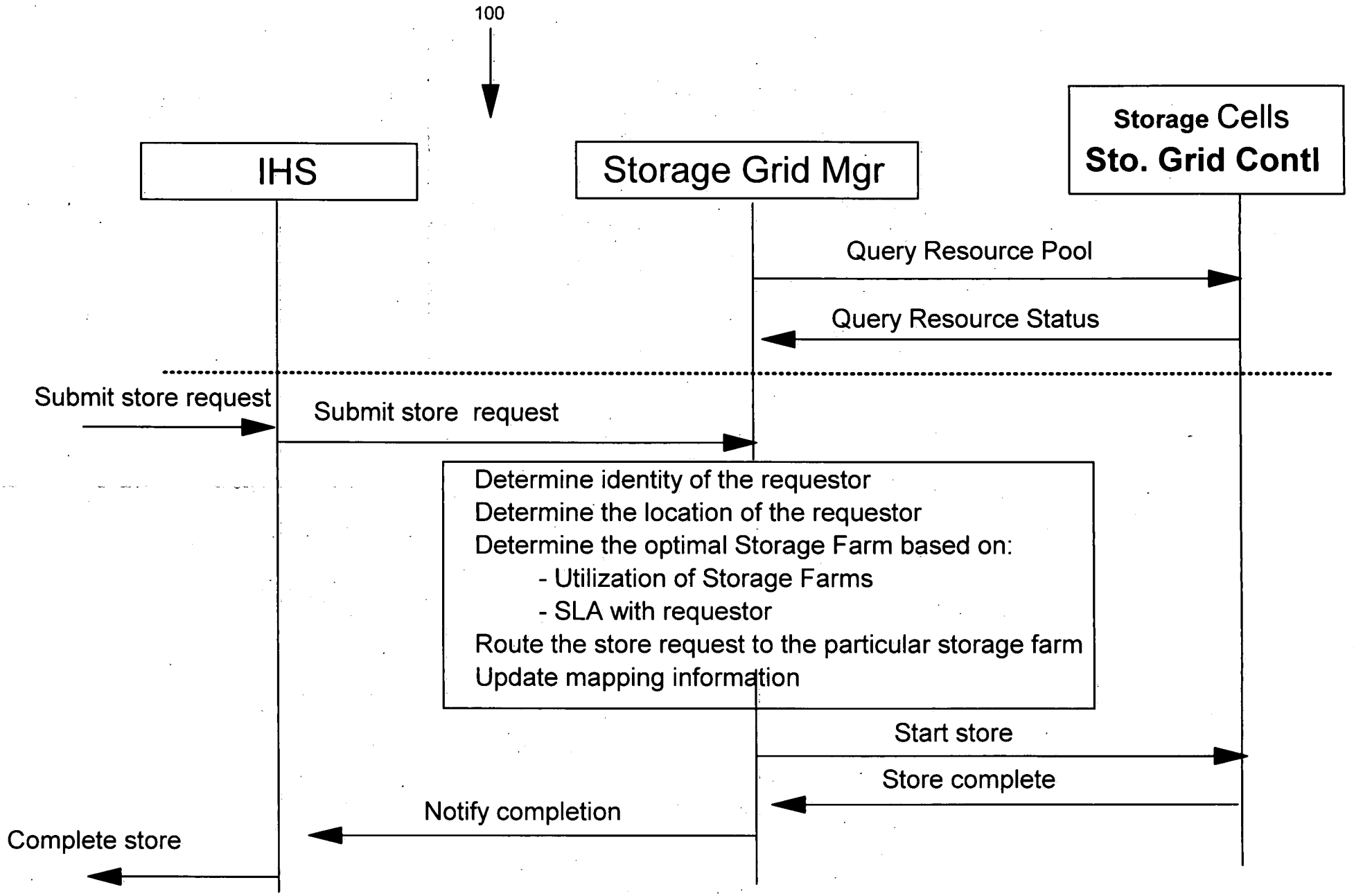
100
IHS
Storage Grid Mgr
Storage Cells
Sto. Grid Contl
Query Resource Pool
Query Resource Status
Submit store request
Submit store request
Determine identity of the requestor
Determine the location of the requestor
Determine the optimal Storage Farm based on:
- Utilization of Storage Farms
- SLA with requestor
Route the store request to the particular storage farm
Update mapping information
Start store
Store complete
Notify completion
Complete store

FIG. 5

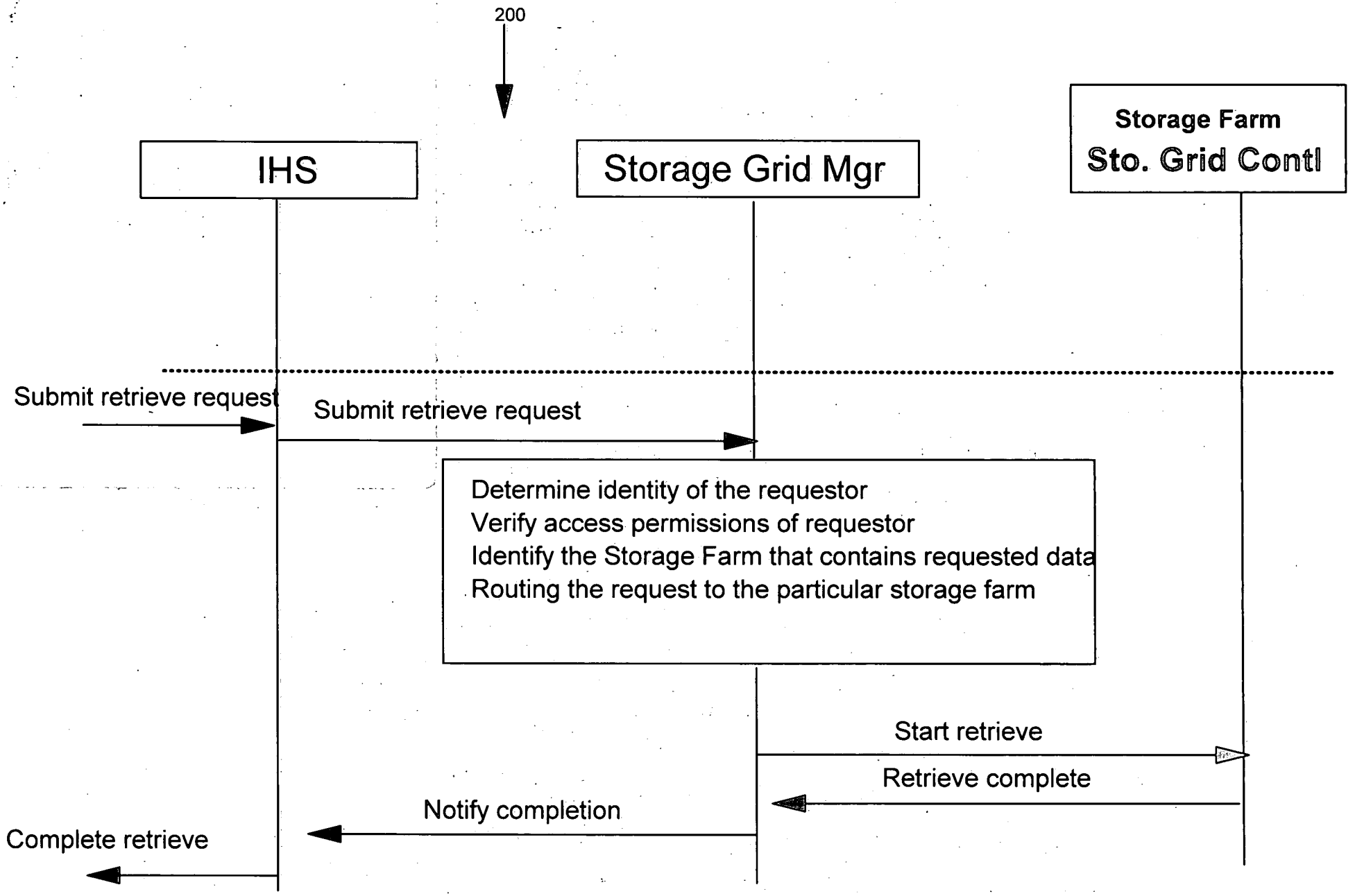
200
IHS
Storage Grid Mgr
Storage Farm
Sto. Grid Contl
Submit retrieve request
Submit retrieve request
Determine identity of the requestor
Verify access permissions of requestor
Identify the Storage Farm that contains requested data
Routing the request to the particular storage farm
Start retrieve
Retrieve complete
Notify completion
Complete retrieve

FIG. 6